

czarny jasiek

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **36**
- SRM **42.1**
- Style **Oatmeal Stout**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29.8 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **26.7 liter(s)**
- Total mash volume **34.8 liter(s)**

Steps

- Temp **64 C**, Time **70 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **26.7 liter(s)** of strike water to **70.7C**
- Add grains
- Keep mash **70 min** at **64C**
- Keep mash **10 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **11.2 liter(s)** of **76C** water or to achieve **29.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	2.8 kg (34.6%)	85 %	7
Grain	Weyermann - Pilsner Malt	1 kg (12.3%)	81 %	5
Grain	Słód owsiany Fawcett	1 kg (12.3%)	61 %	5
Grain	Weyermann - Carapils	0.5 kg (6.2%)	78 %	4
Grain	Caraaroma	0.3 kg (3.7%)	78 %	400
Grain	Weyermann - Chocolate Rye	0.4 kg (4.9%)	20 %	493
Grain	Weyermann - Chocolate Wheat	0.4 kg (4.9%)	74 %	788
Grain	Weyermann - Dehusked Carafo II	0.3 kg (3.7%)	70 %	837
Grain	Jęczmień palony	0.2 kg (2.5%)	55 %	985
Grain	Płatki owsiane	1.2 kg (14.8%)	60 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
---------	------	--------	------	------------

Boil	lunga	20 g	60 min	12.7 %
Boil	Willamette	40 g	20 min	5 %
Boil	Willamette	40 g	5 min	5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Fermentis